Amendments to the Specification:

Please amend paragraph [0004] as follows:

[0004] A number of individual bit transmissions (continuously) from various sources could be conveniently interleaved time multiplexed at source side node/ITSP, instantaneously received (as in PSTN transmissions) & demultiplexed at destination side node/ITSP (converted to analog if required) thereby forwarded to various destination receivers. Worldwide Connections Manager may arrange so that the routers at the nodes automatically switches various incoming Time Multiplexed Circuit Connection transmissions from several neighbouring nodes ~~contiguosly~~ contiguously time multiplexed (ie the various predetermined time periods bandwidths coincide as a larger continuous predetermined time periods transmissions) onto next common node hops by intelligent schedulings of predetermined time periods bandwidth allocations during initialisations of Virtual dedicated circuit connections (so that predetermined time frames allocated to various sources merge seamilessly interleaved time multiplexed into bigger continuous blocks for onward next node hops).

Please add the following paragraph [0010] after paragraph [0009]:

[0010] Fig. 1 is a flow diagram illustrating operations performed by a connections manager in accordance with an exemplary embodiment. In alternative embodiments, additional, fewer, and/or different operations may be performed. Further, the use of a flow diagram is not meant to be limiting with respect to the order of operations performed. In an operation 100, a plurality of nodes which form a communication path between a source and a destination are selected. For example, as described above, nodes A, B, C, and D can be selected to form a communication path (or time multiplexed circuit connection) between source node A and destination node D. In an operation 105, a signal is received from a source. In one embodiment, the signal can be part of a plurality of signals that are received at a rate of one signal per time interval. For example, the plurality of signals may be analog voice signals which are received at a rate of one signal every 1/10 of a second, as described above. In an operation 110, a second time interval is identified based on a communication

rate between the nodes which form the communication path. In an exemplary embodiment, as described above, the second time interval can be based on the lowest communication rate between the nodes which form the communication path. For example, as described above, the second time interval may be one millionth of a second if the lowest communication rate is 6.4 Gigabits/second, one thousandth of a second if the lowest communication rate is 6.4 Megabits/second, and so on. In an operation 115, the signal is transmitted during the second time interval without a buffering delay. The signal can also be transmitted without route computation delay. As described above, the second time interval can occur after the time interval in which the signal is received in order to minimize delay. Thus, continuing the example from above (and assuming a second time interval of one thousandth of a second), the signal received during a first 1/10 of the second interval (T2-1) can be transmitted from the source to a destination during a one thousandth time period (i.e., 1/1000 of the second time interval) which occurs during a second 1/10 time period (T2-2) subsequent to the first 1/10 time period (T2-1). Similarly, a signal received during the second 1/10 time period (T2-2) can be transmitted from the source to the destination during a one thousandth of a second interval which occurs during a third 1/10 time period (T2-3) which is subsequent to the second 1/10 time period (T2-2). A signal received during the third 1/10 time period (T2-3) can be transmitted from the source to the destination during a one thousandth of a second interval which occurs during a fourth 1/10 time period (T2-4) which is subsequent to the third 1/10 time period (T2-3), and so on.